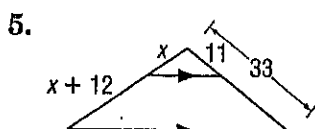
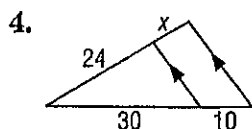
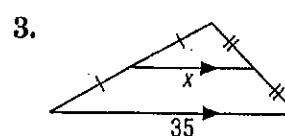
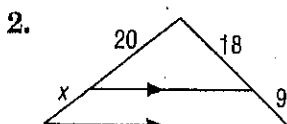
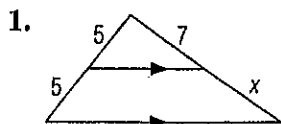
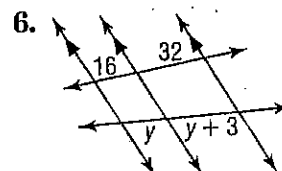
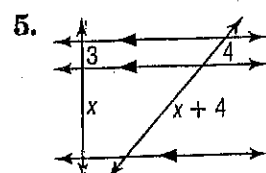
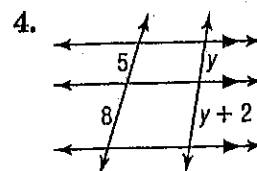
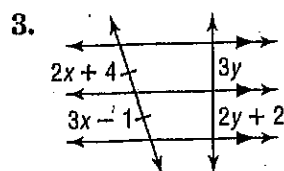
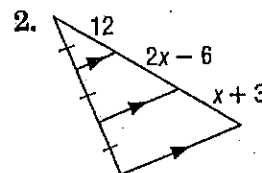
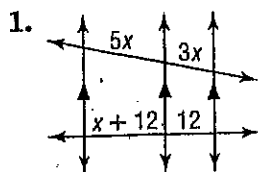


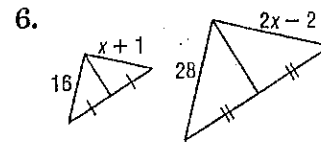
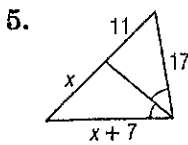
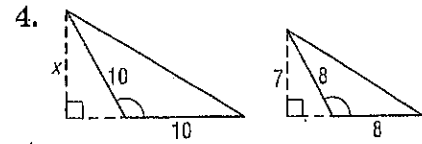
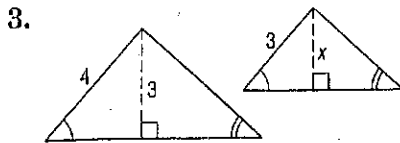
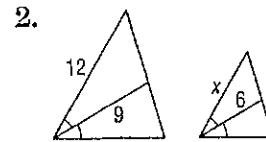
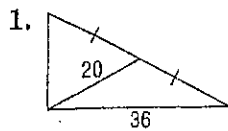
Find  $x$ .

7. In Example 2, find the slope of  $\overline{EF}$  and show that  $\overline{EF} \parallel \overline{GH}$ .

## Exercises

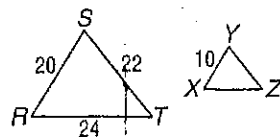
Find  $x$  and  $y$ .

Find  $x$  for each pair of similar triangles.

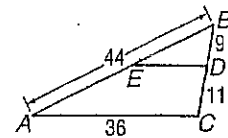


Each pair of triangles is similar. Find the perimeter of the indicated triangle.

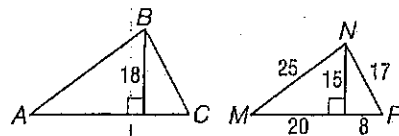
1.  $\triangle XYZ$



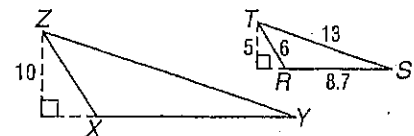
2.  $\triangle BDE$



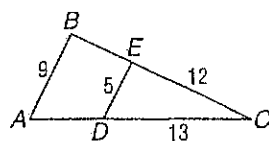
3.  $\triangle ABC$



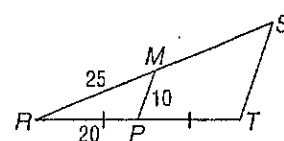
4.  $\triangle XYZ$



5.  $\triangle ABC$



6.  $\triangle RST$



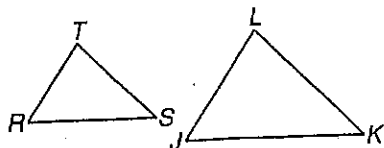
## 6-5

## Skills Practice

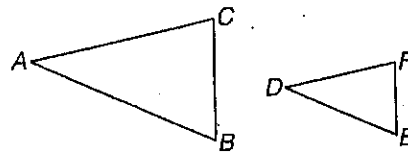
## Parts of Similar Triangles

Find the perimeter of the given triangle.

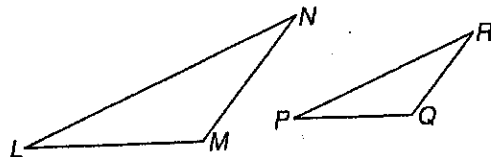
1.  $\triangle JKL$ , if  $\triangle JKL \sim \triangle RST$ ,  $RS = 14$ ,  $ST = 12$ ,  $TR = 10$ , and  $LJ = 14$



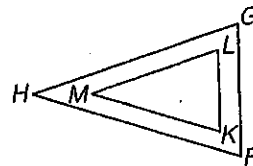
2.  $\triangle DEF$ , if  $\triangle DEF \sim \triangle ABC$ ,  $AB = 27$ ,  $BC = 16$ ,  $CA = 25$ , and  $FD = 15$



3.  $\triangle PQR$ , if  $\triangle PQR \sim \triangle LMN$ ,  $LM = 16$ ,  $MN = 14$ ,  $NL = 27$ , and  $RP = 18$

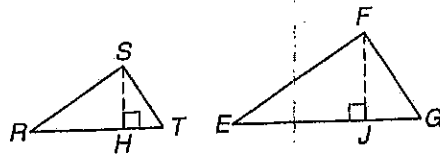


4.  $\triangle KLM$ , if  $\triangle KLM \sim \triangle FGH$ ,  $FG = 30$ ,  $GH = 38$ ,  $HF = 38$ , and  $KL = 24$

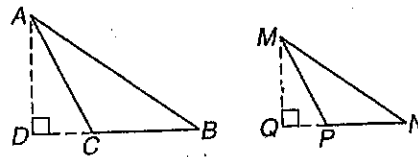


Use the given information to find each measure.

5. Find  $FG$  if  $\triangle RST \sim \triangle EFG$ ,  $\overline{SH}$  is an altitude of  $\triangle RST$ ,  $\overline{FJ}$  is an altitude of  $\triangle EFG$ ,  $ST = 6$ ,  $SH = 5$ , and  $FJ = 7$ .



6. Find  $MN$  if  $\triangle ABC \sim \triangle MNP$ ,  $\overline{AD}$  is an altitude of  $\triangle ABC$ ,  $\overline{MQ}$  is an altitude of  $\triangle MNP$ ,  $AB = 24$ ,  $AD = 14$ , and  $MQ = 10.5$ .

Find  $x$ .

7.  $\triangle HKL \sim \triangle XYZ$

